

We claim:

1. An improved control circuit for a lift system having a lift cage movable in a lift shaft by a drive unit, a control for controlling the drive unit, a data bus  
5 connected with the control, shaft doors for closing the lift shaft, locking devices for locking the shaft doors at a shaft side and lock sensors for monitoring the setting of the locking devices, wherein the lock sensors are connected with the control by way of the data bus, the improved control circuit comprising means for repeatedly automatically interrogating a lock sensor at short time intervals by way of the data  
10 bus whereby communications interruptions or transmission errors in data bus transmissions are detected and for automatically interrogating a state of the locking sensor at long time intervals by determining the open/closed status of a shaft door, and means for passing the results of the interrogations to the controller by way of the data bus.  
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2. The control circuit according to claim 1, characterized in that the locking device is self-shutting when the corresponding shaft door is closed.
3. The control circuit according to claim 1 or 2, characterized in that the  
20 locking devices for locking the shaft doors are of a construction whereby they can be unlocked, opened or closed only by a cage door provided at the lift cage and can be unlocked by a special tool and slid open by hand.
4. The control circuit according to claim 1 or 2, wherein the locking  
25 sensor includes means for monitoring the state of the associated locking device and shaft doors.
5. The control circuit according to claim 1 or 2 wherein the locking  
30 sensor is chosen from a group consisting of a locking device contact, a microswitch, an inductive sensor, a capacitive sensor and an optical sensor.

6. The control circuit according claim 1 or 2, characterized in that the control includes means for evaluating interrogation of the locking sensors in order to be able to trigger one or more of: recognition and localization of a fault; triggering of a service call; or, if an open shaft door was recognized, stopping lift  
5 cage or carrying out a situation-adapted reaction.

7. The control system according to claim 1 or 2, characterized in that the control includes means for evaluating the interrogation of the locking sensors in order to correct ascertained transmission errors by evaluation of several data  
10 packets.

8. The control system according to claim 7, further including means for monitoring a cage door in order to make possible, by means of a coincidence check of the signals of a shaft door and the a cage door, a statement about the  
15 functional capability of at least one of the shaft door and the locking sensor of the shaft door.

9. The control system according to claim 8, characterized in that the monitoring of the cage door is carried out by a safety bus in order to increase  
20 safety.

10. The control system according to claim 1, further including in addition to the locking sensors further means for detecting a state of the shaft doors and for transmitting information about the state of the shaft door by way at least one of the  
25 data bus or a safety bus to the control.